CS 6905 – Fall 2017

Software Engineering

Assignment # 3 - Online Voting System

Submitted by:

Group: # 4

Aafia Jabeen – 201790648

Aswini Naveen – 201692818

Haris Khan – 201454147

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Use Cases

1. **Create election**
2. **Vote**
3. **Nominate for Election**
4. **Voter Research**
5. **Release results**
6. **Update Vote**
7. **Freeze Election**
8. **Update Documents**
9. **Update Voting Policy**
10. **Nominee Update Profile**
11. **Register**
12. **Login**

In first iteration we will be implementing the following:

1. **Create election**
2. **Vote**
3. **Nominate for Election**
4. **Update Vote**
5. **Update Voting Policy**
6. **Nominee Update Profile**

We were able to do all these 6 use cases in addition to these we were able to do these use cases as well:

1. **Register**
2. **Login**

Code Compilation

Please run "`npm run start`" in the compiled zip file or the full zip file to run the NodeJS server. The server will automatically connect to the database in mlab.com. Everything given in the screenshots below works as expected.

Database connection: `mongo ds141175.mlab.com:41175/cs6905 -u student voting_system`

If you run this in a command prompt and you have MongoDB installed, this will connect to the database at mlab.com and you will be able to see all the records there.

Database Schema:

User Collection Schema

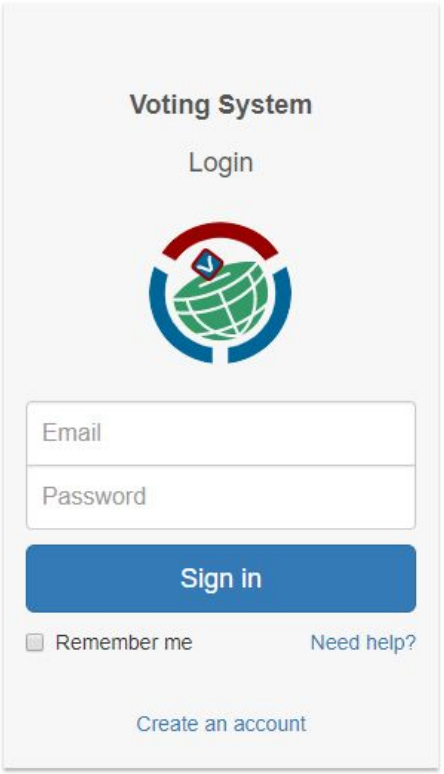
```
{
    "id": 1234567890,
    "email": "dummy@test.ca",
    "name": "Test User",
    "phone": "+1-322-555-5555",
    "address": "123 st street",
    "password": "$#2a#3asfdfdsfdsfdfsdfdsfdfs",
    "role": "electionOfficer",
    "securityQuestions": [
        {
            "question": "when were you born?",
            "answer": "Jan 1 1900"
        }
    ],
    "isVerified": true,
    "isEnabled": true,
    "incorrectLoginTries": 4,
    "lastActiveAt": "Sat Apr 08 2017 14:58:21 GMT-0400 (Eastern Daylight Time)",
    "createdAt": "Sat Apr 08 2017 14:58:21 GMT-0400 (Eastern Daylight Time)",
    "modifiedAt": "Sat Apr 08 2017 14:58:21 GMT-0400 (Eastern Daylight Time)"
}
```

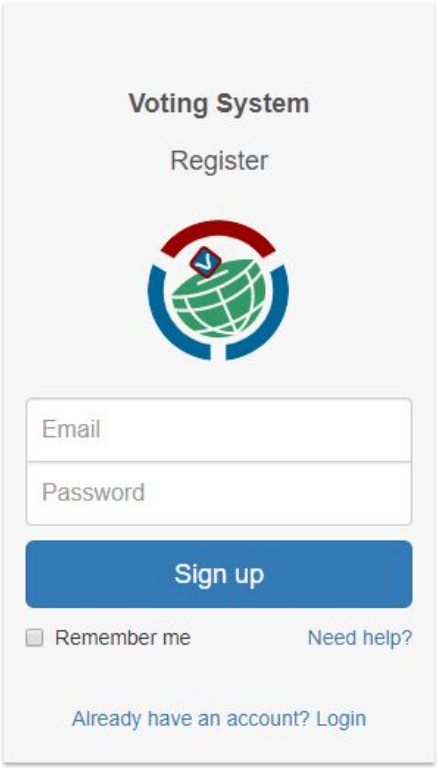
Election Collection Schema

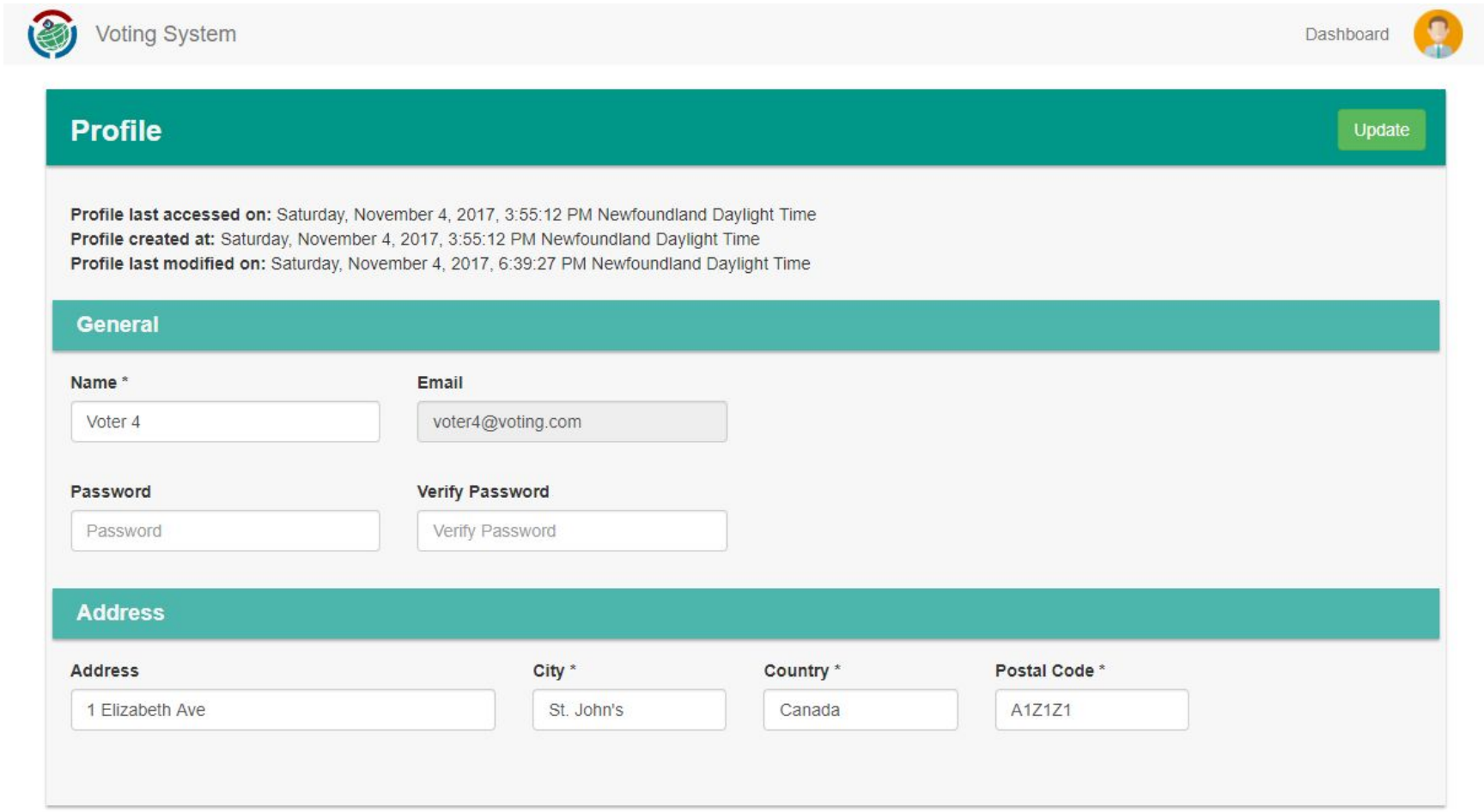

```
{
    "_id": 213454,
    "name": "Provincial Election - NL",
    "winningStrategy": "Winner Takes All",
    "dateFrom": "Thu Oct 13 2017 00:00:00 GMT-0230 (Newfoundland Daylight Time)",
    "dateTo": "Thu Oct 31 2018 00:00:00 GMT-0230 (Newfoundland Daylight Time)",
    "isDistrictElections": true,
    "numberOfDistricts": 5,
    "candidatesStrategy": "predefined",
    "usersStrategy": "registeredUsers",
    "userObjectConditions": "",
    "candidates": [
        {
            "candidateId": 234455,
            "numOfVotes": 123,
            "isApproved": false
        }
    ],
    "voters": [
        {
            "voterId": 234455,
            "hasVoted": false,
            "votedFor": 3456634
        }
    ]
}
```

Screenshots

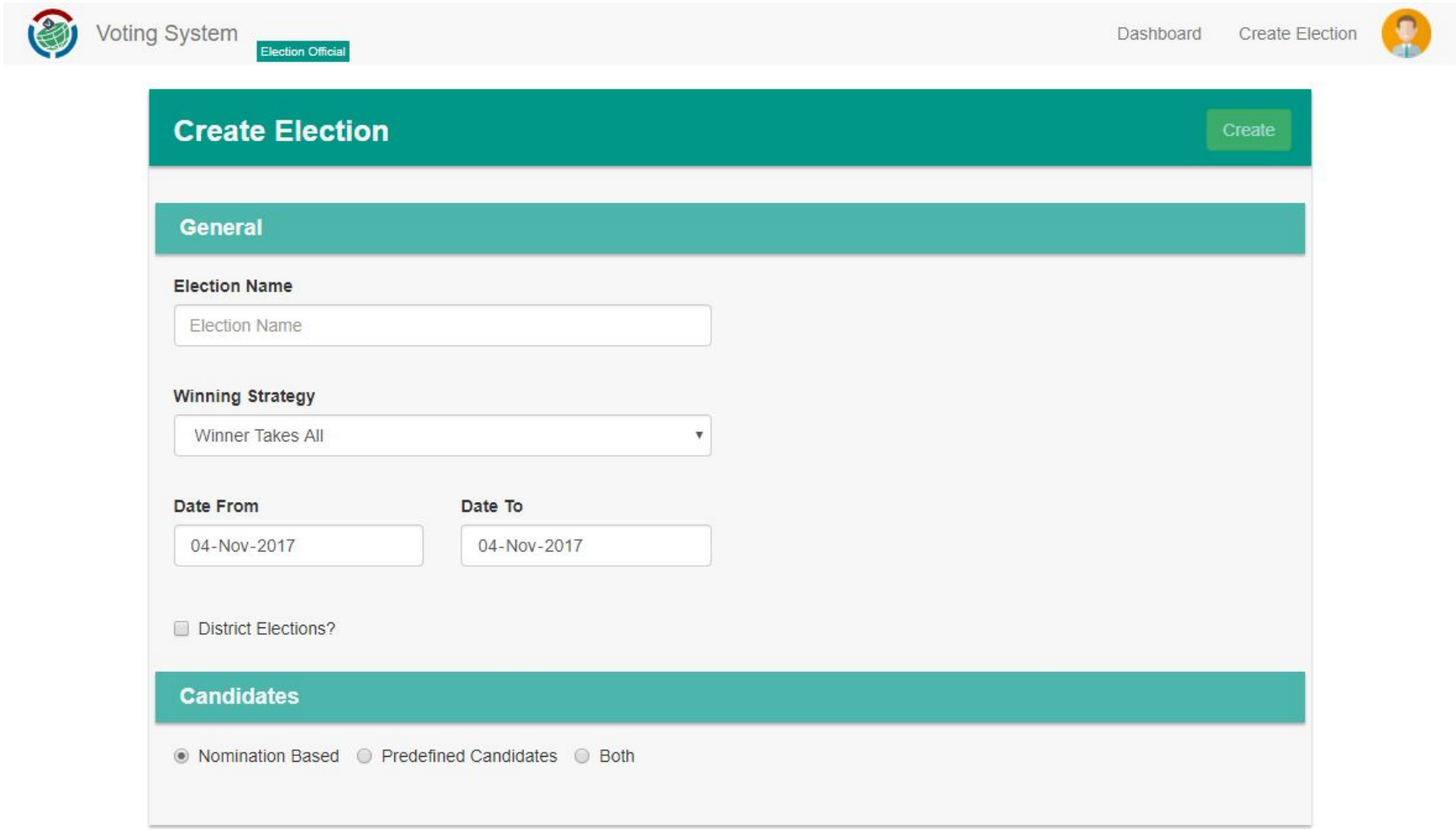
Login and Registration

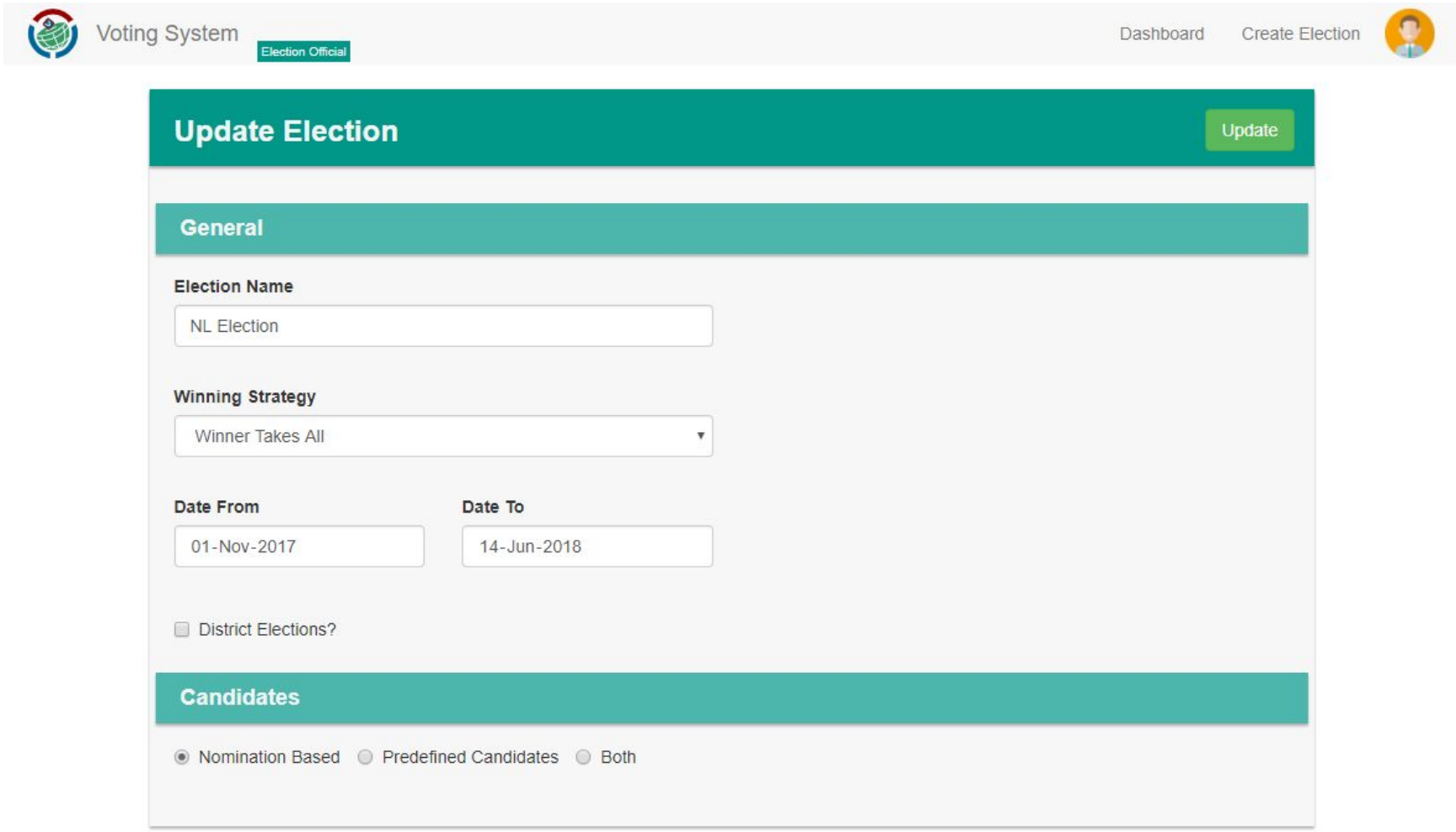


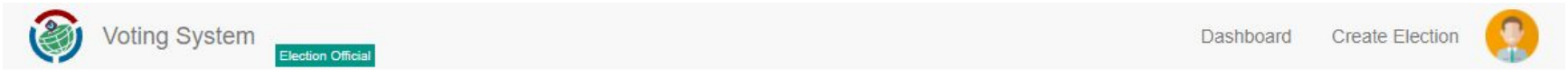



Voting System
Dashboard
Profile
Update
Profile last accessed on: Saturday, November 4, 2017, 3:55:12 PM Newfoundland Daylight Time
Profile created at: Saturday, November 4, 2017, 3:55:12 PM Newfoundland Daylight Time
Profile last modified on: Saturday, November 4, 2017, 6:39:27 PM Newfoundland Daylight Time
General
Name *
Voter 4
Email
voter4@voting.com
Password
Password
Verify Password
Verify Password
Address
Address
1 Elizabeth Ave
City *
St. John's
Country *
Canada
Postal Code *
A1Z1Z1

Election Official Perspective




Voting System
Election Official
Dashboard
Create Election
Update Election
Update
General
Election Name
NL Election
Winning Strategy
Winner Takes All
Date From
01-Nov-2017
Date To
14-Jun-2018
District Elections?
Candidates
Nomination Based
Predefined Candidates
Both



Current Elections

NL Election

Winning Strategy
winnerTakesAll
Candidates strategy
nomination

Nov 1, 2017 --- Jun 14, 2018

Edit Election

Future Elections

MUNSU Elections

Winning Strategy
proportional
Candidates strategy
predefined

Nov 26, 2017 --- Nov 30, 2017

Edit Election

Election - BC

Winning Strategy
winnerTakesAll
Candidates strategy
nomination

Jan 10, 2018 --- Mar 20, 2018

Edit Election

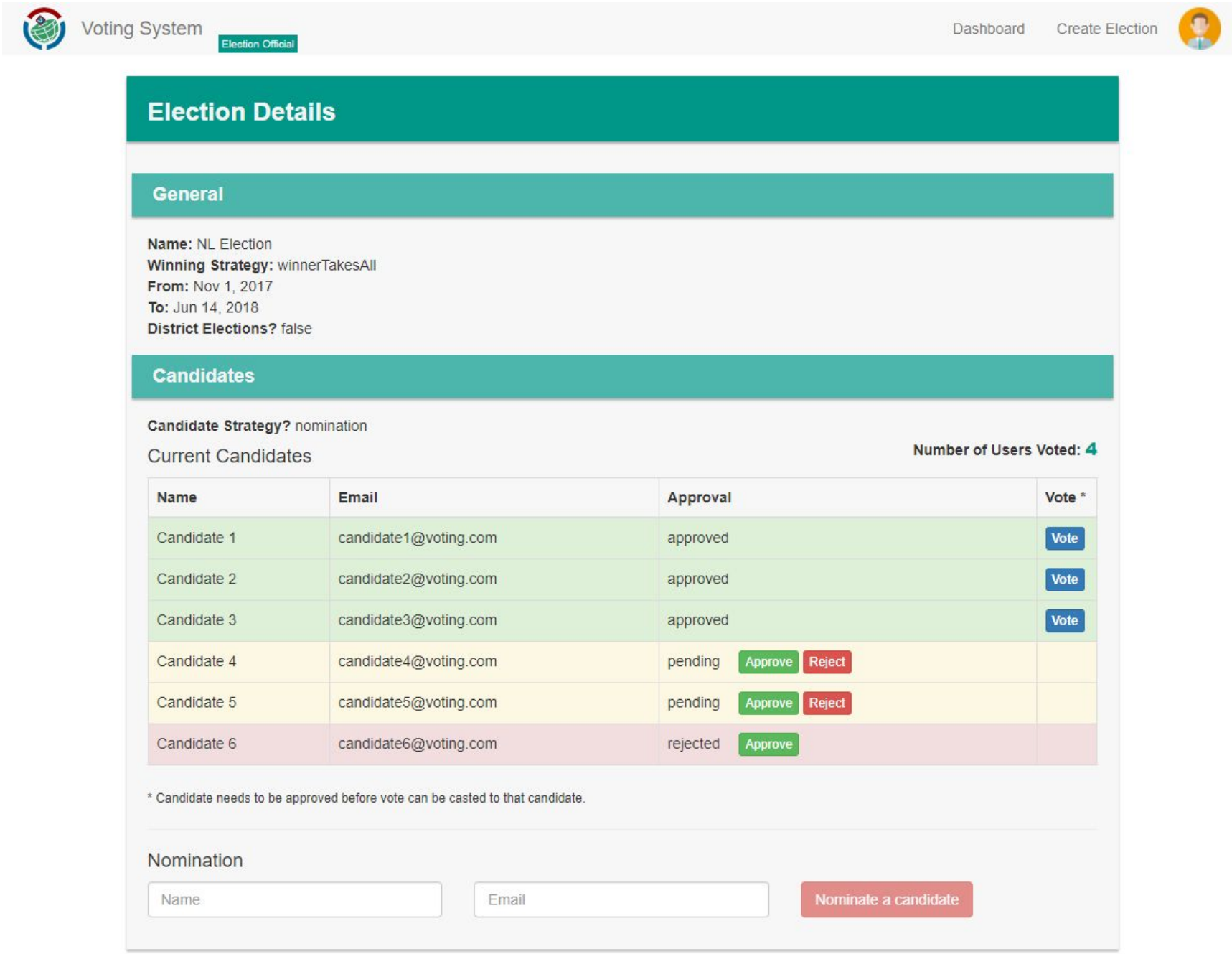
Election - Quebec

Winning Strategy
proportional
Candidates strategy
predefined

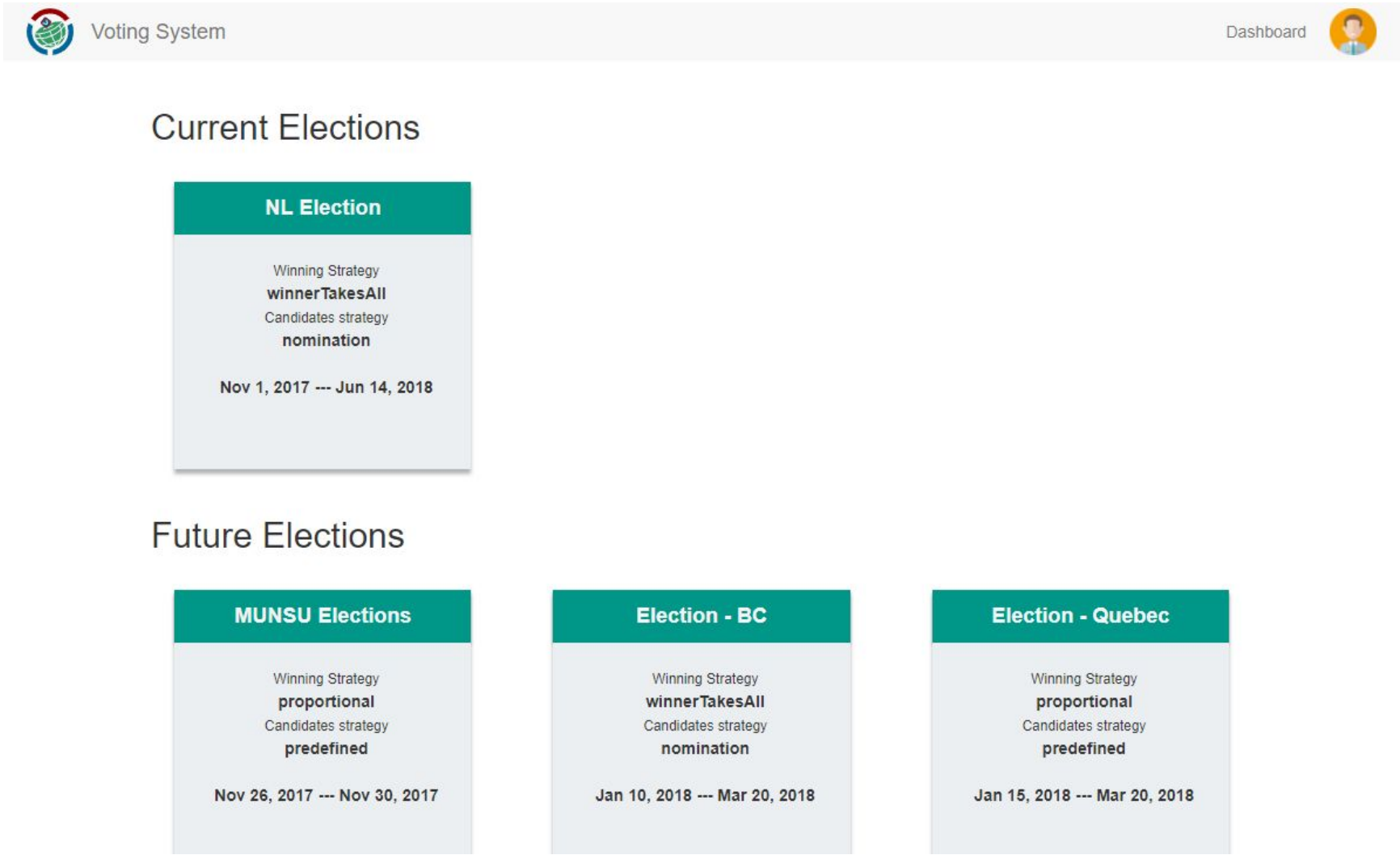
Jan 15, 2018 --- Mar 20, 2018

Edit Election

Election - NB


Voting System
Election Official
Dashboard
Create Election
Election Details
General
Name: NL Election
Winning Strategy: winnerTakesAll
From: Nov 1, 2017
To: Jun 14, 2018
District Elections? false
Candidates
Candidate Strategy? nomination
Current Candidates
Number of Users Voted: 4
Name
Email
Approval
Vote *
Candidate 1
candidate1@voting.com
approved
Vote
Candidate 2
candidate2@voting.com
approved
Vote
Candidate 3
candidate3@voting.com
approved
Vote
Candidate 4
candidate4@voting.com
pending
Approve
Reject
Candidate 5
candidate5@voting.com
pending
Approve
Reject
Candidate 6
candidate6@voting.com
rejected
Approve
* Candidate needs to be approved before vote can be casted to that candidate.
Nomination
Name
Email
Nominate a candidate

Voter Perspective



Election Details

General

Name: NL Election
Winning Strategy: winnerTakesAll
From: Nov 1, 2017
To: Jun 14, 2018
District Elections? false

Candidates

Candidate Strategy? nomination

GREAT! You voted for Candidate 2 Change Vote

We will email you when the results are published!

Current Candidates

Number of Users Voted: 4

Name	Email	Approval	Vote *
Candidate 1	candidate1@voting.com	approved	
Candidate 2	**candidate2@voting.com**	**approved**	✓
Candidate 3	candidate3@voting.com	approved	
Candidate 4	candidate4@voting.com	pending	
Candidate 5	candidate5@voting.com	pending	
Candidate 6	candidate6@voting.com	rejected	

* Candidate needs to be approved before vote can be casted to that candidate.

Nomination

Name | Email | Nominate a candidate

URLs

Github URL

https://github.com/harisbarki/CS6905-Online-Voting